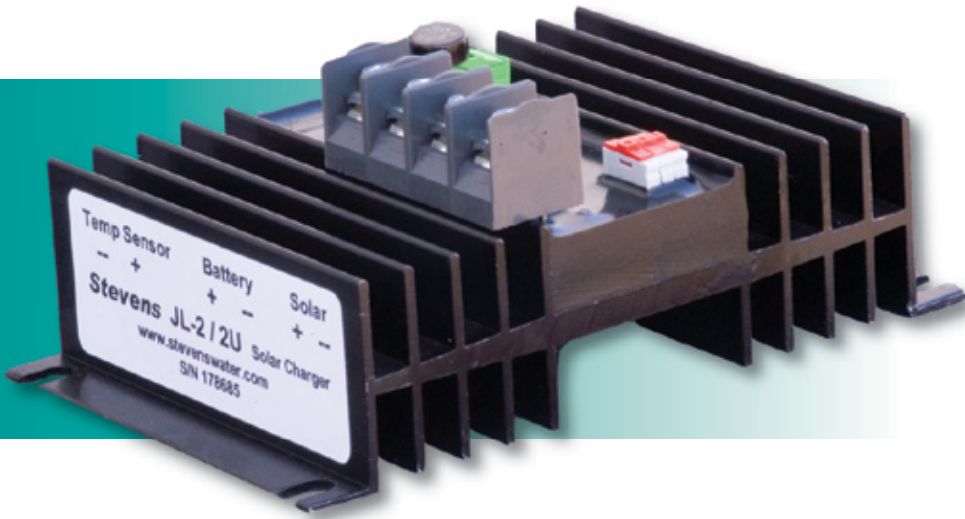


# JL-2 Solar Panel Charge Controller

## Features



## Description

The Stevens JL-2 is a temperature compensated, tapered charge controller that has been independently tested and proven to extend the performance life of a battery beyond leading regulators. The JL-2 has set-point adjustable float chargers that can be used with PV arrays or power supplies having power ratings as high as 40 watts (higher panel wattage can be handled under controlled conditions). The regulator features low current consumption (typically less than 50 microamp), and battery temperature sensing and compensation. The optional external temperature sensor is held in contact with the battery case via an 8 foot cable. The float threshold is adjustable between 11 and 16 volts via a trimpot. The float level of the regulator changes by approximately -23 mV/degree C; colder temperatures causing a higher float level.

The JL-2 charge controller will charge a fully discharged battery at the full current output of the solar panel and will automatically taper the charging current to zero as the terminal voltage of the battery approaches the float level of the charger. The JL-2 then provides the required trickle current to maintain the battery at the float level, assuming sufficient sunlight.

An LED is illuminated from the solar panel current signifying ample current for battery charging and proper operation of the regulator.

The automatic current charge management and temperature compensation feature insures the battery will not be damaged by overcharging and increase the battery's performance life.

- Adjustable float threshold
- Tapered charge
- Battery temperature compensated
- Non-shorting input
- Optimizes required charge current for:
  - Wet cell batteries
  - Gel cell batteries (typically used by the USGS)
- LED charge indicator
- Maximize battery efficiency and life
- Reduced cost of battery maintenance and replacement
- Reduced risk of down time and data loss caused by loss of power
- Switch selectable for JL-2, JL-2U configurations
- Tested by the USGS HIF

## Applications

- Battery powered Installations that are charged with solar panels or a/c chargers up to 4 amps such as **remote environment monitoring stations**.

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Since 1911, Stevens Water Monitoring Systems, Inc. has provided complete water monitoring solutions including:

- Water Level Sensors
- Water Quality Sensors
- Soil Moisture Sensors
- Chart Recorders
- Staff Gages
- Weather Sensors
- Telemetry Systems
- Data Collection Platforms

## Technical Specifications

Power Specifications	JL-2 and JL-2U
Max Input Voltage	28 volts
Max Charging Current and/or Power Dissipation	4 Amps <sup>1</sup>
Solar Panel Wattage	40 watts
Operating Current Consumption	50 microAmps

1. The charge controller will handle currents to 10 amps if the power dissipated by the controller does not exceed 15 watts.

Temperature Specifications	
Operating	-50 °C to +50 °C
Compensation	-23 mV / °C - JL-2 -12 mV / °C - JL-2U
Storage	-55 °C to +85 °C

Physical Size	
Length x Height x Depth	4.8 x 3.0 x 1.6 inches (120.6 x 76.3 x 38.8 mm)
Weight	0.46 lbs (0.21 kg)

## Ordering Information

Description	Part #
JL-2 Charging regulator w/ <b>internal</b> temperature sensor	70009
Optional <b>external</b> temperature sensor assembly	92741